

Conclusions: Despite treating pts. with more complex anatomy, RoPro use is associated with a 69% reduction in CK rise, 22% lower incidence of mild CK rise and a reduction of large non-Q wave MI's by 75%.

1088-103 Abciximab Inhibits Formation of Platelet-derived Microparticles Despite Platelet Activation

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Platelet-derived microparticles (PMP), platelet (P) membrane vesicles with procoagulant properties, form after P activation. Abciximab (7E3), a monoclonal antibody against GP IIb/IIIa, inhibits P aggregation and reduces complications of PTCA. Using whole blood flow cytometry, we studied the formation of PMP in patients receiving 7E3 during PTCA. Blood collected before and one hr after A was stimulated with ADP or a strong agonist, thrombin receptor activating peptide (TRAP). 7E3 bound 93% of activated IIb/IIIa receptors before and 75-81% after stimulation. P-selectin, an indicator of P activation, increased 8.7 and 10.3 fold with ADP ($p < 0.01$), and 16.4 and 18.1 fold with TRAP ($p < 0.001$). PMP (%) were:

| | Baseline | 5 μ M ADP | 20 μ M ADP | 5 μ M TRAP | 20 μ M TRAP |
|----------|---------------|---------------|----------------|----------------|-----------------|
| Pre 7E3 | 25 \pm 1.4 | 36 \pm 2.1 | 38 \pm 2.5 | 37 \pm 2.1 | 39 \pm 2.4 |
| Post 7E3 | 1.4 \pm 0.9 | 1.8 \pm 1.1 | 1.9 \pm 1.2 | 2 \pm 1.3 | 2.3 \pm 1.4 |
| P | 0.03 | 0.01 | 0.03 | 0.14 | 0.08 |

PMP were inversely proportional to unbound IIb/IIIa receptors ($r = 0.39$, $p = 0.005$). Thus 7E3 inhibits PMP formation after weak stimulation but permits some PMP formation after more intense stimulation. Limiting PMP may represent another mechanism by which 7E3 prevents thrombosis and may have implications for IIb/IIIa antagonists in coronary syndromes where thrombin provides an intense stimulus for P activation and PMP formation.

1088-104 Synergy of Abciximab and Ticlopidine in Patients Undergoing Intracoronary Stenting

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Ticlopidine (T) and abciximab (abx) exhibit different pharmacodynamic profiles and both are often used during stent placement. To study their interaction, we measured inhibition of platelet aggregation (IPA) to 5 μ M ADP and 8 μ M TRAP, and GP IIb/IIIa receptor blockade (RB) in patients receiving stents. All patients received aspirin and T 12-18 hours prior to PTCA; half also received abx immediately prior. Time was measured from abx administration. IPA for ADP was:

| | Post T | 2 H | 24 H | 3 D | 7 D | 14 D |
|---------|------------|------------|------------|------------|-------------|-------------|
| T + abx | 7 \pm 8 | 94 \pm 2 | 64 \pm 4 | 48 \pm 6 | 47 \pm 13 | 43 \pm 12 |
| T | 11 \pm 6 | 10 \pm 6 | 18 \pm 9 | 25 \pm 8 | 48 \pm 14 | 21 \pm 13 |
| P | 0.61 | 0.0008 | 0.0042 | 0.04 | 0.45 | 0.30 |

In response to TRAP, IPA for T + abx was less profound, peaking at 47% at two hours, and falling to 13% at 3 days and 22% at 14 days, compared with 6%, 4%, 1% respectively for T only. RB at 2 hrs was 90% for T + abx and declined to baseline at 14 days. T alone led to minimal change in RB. Thus, the combination of T and abx allowed profound initial IPA compared with T alone; platelet aggregation remained inhibited even when receptor availability returned to baseline. Abx had little effect on the late action of T. These findings provide mechanistic support for the simultaneous use of T and abx in PTCA.

1088-105 Incidence of Bleeding Complications Associated With Abciximab Use in Conjunction With Thrombolytic Therapy in Patients Requiring Angioplasty

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Background: With the more widespread use of Abciximab (Abx) as an adjunct to angioplasty (PTCA) during acute myocardial infarction (MI), the safety of the combination therapy of thrombolytics and abx should be more clearly defined.

Methods: A retrospective analysis was performed in 100 acute MI patients who underwent PTCA with adjunctive Abx therapy. Patients were divided into three groups: A (Rescue PTCA within 15 hr of thrombolytics) n = 22, B (successful thrombolytic therapy followed by elective PTCA) n = 34, and C (primary

PTCA) n = 44. All patients received Abx as a 0.25 mg/kg bolus followed by an infusion of 10 μ g/min for 12 hours. Bleeding was classified as major, minor, or insignificant according to the criteria of the TIMI Study Group.

Results:

| | Group A | Group B | Group C |
|---------------------|----------|----------|----------|
| Insignificant Bleed | 14 (64%) | 31 (91%) | 33 (75%) |
| Minor bleed | 4 (18%) | 3 (9%) | 10 (23%) |
| Major bleed | 4 (18%) | 0 | 1 (2%) |

Major bleeding occurred more frequently in group A versus group B ($p < 0.02$) and group C ($p < 0.04$). Two intracranial hemorrhages occurred in group A only.

Conclusion: There is a significant increase in major bleeding complications when Abciximab is used in conjunction with 'rescue angioplasty' within 15 hr after failed thrombolytic therapy.

1088-106 "Bailout" c7E3 During Coronary Intervention: Acute Results and Long-term Follow-up

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Prior studies have shown the efficacy of c7E3 in decreasing ischemic complications when given immediately prior to PTCA. The purpose of this study was to evaluate the efficacy of "bailout" c7E3 on acute and long-term outcome after coronary intervention. 95 patients underwent coronary intervention with adjunctive c7E3: 58 patients treated prophylactically, and 37 patients treated provisionally for suboptimal response to initial intervention (bailout). Procedural success was achieved in all 37 bailout patients (100%). There were no in-hospital deaths, Q-MI, CABG or repeat PTCA; 2 patients experienced non Q-MI (5.4%). Comparison of the prophylactic and bailout c7E3 patients demonstrated no significant difference in in-hospital cardiac complications (3.4 vs 5.4%) or vascular complications (10.3 vs 5.4%). Late clinical follow-up at ≥ 1 year (range 13-28 months) was obtained in all 37 bailout patients (see table).

| | Death | CABG | MI | RePTCA | Any Event |
|----------|----------|----------|----------|----------|------------|
| 30 day | 0 | 0 | 2 (5.4%) | 0 | 2 (5.4%) |
| > 1 year | 1 (2.7%) | 2 (5.4%) | 2 (5.4%) | 10 (27%) | 15 (40.5%) |

Following hospital discharge, there were no cardiac events in bailout patients within 30 days. However, late follow-up revealed cardiac events in 15 (40.5%) patients predominantly due to clinical restenosis and repeat revascularization.

Conclusions: Use of c7E3 in a bailout fashion is associated with high procedural success, in-hospital outcomes comparable to prophylactic use, and a low 30 day cardiac event rate. However, the potential for late restenosis is not eliminated. Further prospective trials of this strategy are needed.

1088-114 Initial Report of Gamma Radiotherapy for Diffuse Coronary Restenosis: The SCRIPPS II Trials

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Gamma radiation has been shown to reduce coronary restenosis in patients with discrete (6.30 mm) lesion lengths. In a subsequent trial (the SCRIPPS II Trial), we randomized 51 patients with diffuse restenotic segments up to 65 mm in lesion length. A blind lumen radiation delivery catheter was used to deliver one of two Ir-192 (or placebo) source wire lengths to span the target lesion.

Thirty-day outcome:

| | Ir-192 n = 26 | Placebo n = 25 | |
|----------------------|-------------------|-------------------|----|
| Lesion length (mm) | 16.07 \pm 12.43 | 13.91 \pm 7.48 | NS |
| Length < 10 mm | 56% | 60% | NS |
| Vessel diameter (mm) | 2.49 \pm 0.45 | 2.56 \pm 0.50 | NS |
| MLD Pre (mm) | 0.70 \pm 0.45 | 0.61 \pm 0.37 | NS |
| MLD Post (mm) | 2.74 \pm 0.45 | 2.85 \pm 0.53 | NS |
| Death/MI/CABG | 0/0/0 | 0/0/0 | |

In 2 patients, the study catheter partially obstructed flow resulting in significant ischemia requiring interruption of treatment. In both cases the source wire was withdrawn in < 20 seconds.

Conclusion: Coronary ischemia may occur during gamma irradiation of diffuse, small vessel disease, but catheters can be quickly withdrawn without jeopardizing patient safety. Interim analysis of 6-month outcome will be presented.